

THE GENUS *MUSSAENDOPSIS* BAILL. (RUB.)

by

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The genus *Mussaendopsis* was created by Baillon in 1879 for a tree found by Beccari in Sarawak, Borneo. As it appeared afterwards, the same species occurs also in the Malay Peninsula, on the islands between the latter and Borneo, and in Sumatra. On specimens collected in the Malay Peninsula, in 1884 the genus *Creaghia* Scort. was founded. The descriptions of the two genera are very similar, and as *Mussaendopsis* Baill. is not mentioned by Scortechini, we may safely assume that Baillon's publication was unknown to him. The identity of the two genera was disclosed by K. Schumann in his monograph of the family in Engler et Prantl. Subsequently the plant was dealt with by Stapf, King and Gamble, Ridley and Leméé. None of the descriptions, however, is entirely satisfactory, and this applies also to the figure given by Stapf in Hooker's *Icones Plantarum*: exactly as in the original description the stamens spring here from the top of the ovary instead of from the corolla tube, a mistake which had been rectified already bij K. Schumann.

The most noteworthy deficiency in the various descriptions regards the position of the stipules. By Baillon they were described as interpetiolar; the other authors are silent on this point. Baillon, however, was mistaken: they are intrapetiolar. This is very remarkable, for stipules of this kind are extremely rare. When I found them some years ago in the genus *Didymocium*, I went through all the generic descriptions given by Bentham and Hooker and by K. Schumann, and discovered that their presence had been announced already in several other genera. A reinvestigation, however, led to an entirely different result: of all these genera *Capirona* proved to be the only one in which they really occur. *Mussaendopsis*, therefore, is the third genus in which this kind of stipules has been observed.

A conspicuous feature of *Mussaendopsis* is the presence in some of the flowers of a large and showy foliaceous calyx lobe. There are

several genera in which the inflorescences are adorned in this way, but as they belong to at least three different tribes, the taxonomic importance of this character is apparently but small. It is noteworthy, however, that in this respect too *Mussaendopsis* agrees with *Capirona*.

As the fruits are capsular, and the numerous seeds ascending and winged, the genus belongs, as was recognized already by Baillon and Scortechini, to the *Cinchoneae*. The contorted aestivation of the corolla lobes and the septicidal dehiscence of the capsule bring it in the vicinity of *Ferdinandusa*, *Calycophyllum* and *Capirona*. With the two latter it agrees in the presence in some of the flowers of showy foliaceous calyx lobes; with *Capirona* moreover, as we have seen already, in the position of the stipules. From all three it differs, however, conspicuously in the position of the inflorescences: in *Mussaendopsis* the latter are axillary, in the others terminal.

A new species belonging to this genus was found among the material collected some years ago by Dr. G. Kjellberg in Celebes. In the following generic description the characters of this species have been taken into account.

Mussaendopsis Baill. in *Adansonia* XII, 282 (1879); id., *Hist. d. Pl.* VII, 489 (1880); *Boerlage*, *Handl. Fl. Ned. Ind.* II (1), 37 (1891); K. Schumann in *Engl. et Prantl., Nat. Pfl. fam.* IV, (4), 53 (1891); *Stapf* in *Hook.*, *IC. Pl. XXIV*, pl. 2388 (1895); *King et Gamble* in *Journ. Asiat. Soc. Beng.* LXXII (2), 139 (1903); *Ridley*, *Fl. Mal. Pen.* II, 19 (1923); *Le meé*, *Dict. Pl. Phan.* IV, 599 (1932). — *Synonymia*: *Creaghia* Scort. in *Journ. Bot. XXII*, 369 (1884); *Boerlage*, *Handl. Fl. Ned. Ind.* II (1), 37 (1891).

Typus: *M. Beccariana* Baill. in *Hb. Par.*

Inter genera *Cinchonearum* quibus corollae lobi aestivatione contorti et capsula primum septicida proprii sunt floribus nonnullis calycis lobo amplificato ornatis cum *Capirona* et *Calycophyllum*, stipulis intrapetiolaribus cum priore solo congruens, inflorescentiis axillaribus unicum.

Arbores inflorescentiis exceptis glaberrimae. *Folia* petiolata; lamina coriacea reticulatione densissima sicc. subtus prominula. *Stipulae* intrapetiolares, a foliis expandentibus abjectae. *Inflorescentiae* axillares, longe pedunculatae, paniculatae, sparse pubescentes; bracteae parvae, superiores haud rare in ramulos egredientes. *Flores* hermaphroditici, tetrameri vel pentameri, parvi. *Ovarium* biloculare; ovula numerosa e placentis fusiformibus septo longitudinaliter affixis

ascendentia. *Calyx* tubo subnullo, lobis triangularibus vel oblongis, in floribus nonnullis uno in appendicem foliaceam albam producto. *Corolla* infundibuliformis vel hypocrateriformis, alba, tubo intus glabro, lobis alabastro dextrorse contortis. *Stamina* exserta, filamentis glabra supra vel infra medium tubum inserta, antheris brevibus dorsifixis, introrsis, flore aperto depletis. *Discus* subcupularis. *Stylus* crassus exsertus, apice bilobatus. *Capsula* septicida, valvulis usque ad medium bifidis tamen. *Semina* ascendentia, centro luteo-brunneo ala oblonga, utrimque acutiuscule exeunte circumdato.

Distributio: Peninsula Malayensi, Sumatra, terra Borneensi et Celebica. Species duae.

1. **Mussaendopsis Beccariana** Baill. in Adansonia XII, 282 (1879); Boerlage, Handl. Fl. Ned. Ind. II (1), 37 et 122 (1891); K. Schumann in Engl. et Prantl, Nat. Pfl. fam. IV, (4), 53 (1891); Staph in Hook., Ic. Pl. XXIV, pl. 2388 (1895); King et Gamble in Journ. Asiat. Soc. Beng. LXXII (2), 139 (1903); Merrill in Journ. Asiat. Soc. Straits. Special Number 1921, 547; Ridley, Fl. Mal. Pen. II, 19 (1923), — *Creaglia fragraeopsis* Scott. in Journ. Bot. XXII, 370 (1884); Boerlage, Handl. Fl. Ned. Ind. II (1), 37 et 122 (1891).

Hab. Peninsulam Malayensem, Sumatram, insulas inter Sumatram et terram Borneensem, terrae Borneensis partem occidentalem.

2. **Mussaendopsis celebica** n. spec.; typus: Kjellberg n. 2819 in herb. bogor.; a *M. Beccariana* Baill. foliis angustioribus et nervos plures exhibentibus, panicula pauciflora, minus ampla, floribus tetrameris, calycis lobis oblongis, corollae tubo longiore faciliter distinguenda.

Rami novelli complanati, deinde subteretes et cortice griseo-brunneo levi obtecti. *Folia* petiolo crassiusculo 10—23 mm. longo; lamina elliptico-oblonga 8—15 cm. longa et 3.8—6.2 cm. lata, apice acuminata, basi acuta, supra nitida et subtus nitidula, sicc. brunnea vel luteo-brunnea, nervis utroque latere costae 8—13 subtus prominulis, reticulatione supra aegre distinguenda, subtus prominula. *Stipulae* oblongae 1.4—2.3 cm. longae et 6—8 mm. latae, apiculatae, sicc. nigricantes, nitidae. *Inflorescentia* pedunculo glabro 5.5—7 cm. longo, panicula bis vel ter trichotoma, angusta, quam pedunculo breviore; ramuli sparse pubescentes, primarii 0.7—2 cm., secundarii 0.2—1.2 cm. longi; ramuli infimi foliis rudimentariis linearibus, usque ad 4 mm. longis suffulti, alii bracteis filiformibus parvis, interdum deciduis. *Flores* sessiles vel subsessiles, tetrameris. *Ovarium* tomentosum 5 mm. altum et 3 mm. diam., ovulis quoque loculo circ.

50. *Calyx* lobis oblongis 3—4.5 mm. longis et 1.2—2.2 mm. latis, subglabris; lobo foliaceo quinquenervio, 2 cm. longo et 1.4 cm. lato, in petiolum 1.5 mm. longum, in ovarium decurrentem contracto, supra puberulo. *Corolla* extus dense tomentosa tubo 3.5 mm. longo, lobis ovatis 4.5 mm. longis, obtusis, utraque facie papillosum, faucem

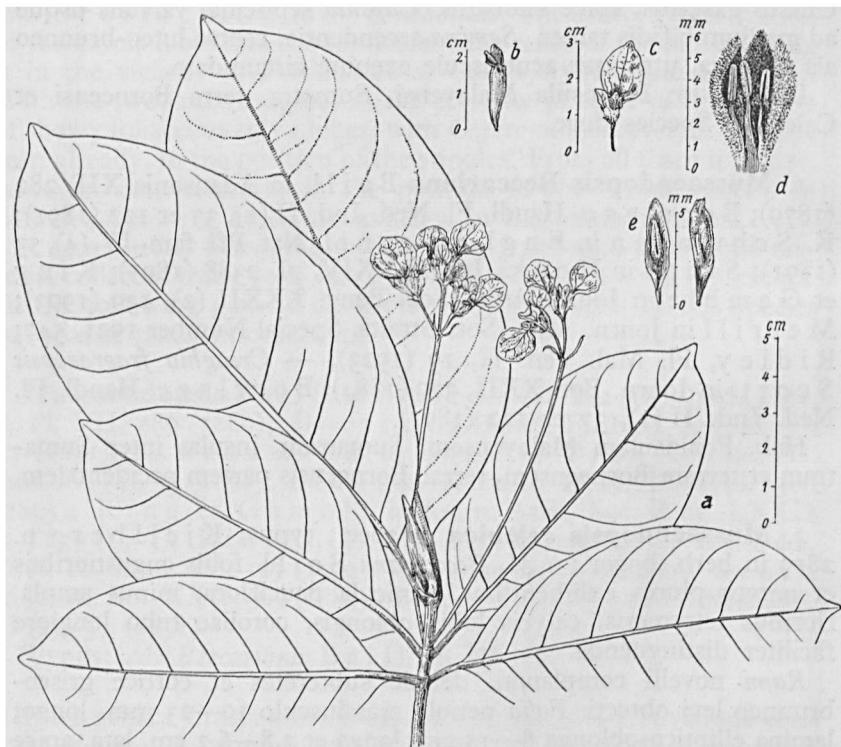


Fig. 1. *Mussaendopsis celebica* Brem.; a. habit; b. young fruit; c. flower bud with enlarged calyx lobe; d. not quite mature corolla, one lobe and the corresponding part of the tube taken away; e. seeds.

versus glabrescentibus tamen. *Stamina* paulo supra medium tubum inserta, filamentis 2.5 mm. longis, antheris oblongis 1.8 mm. longis, obtusis. *Stylus* 5 mm. longus, glaber, stigmatibus ovatis 1 mm. longis. *Capsula* tomentella 10—15 mm. longa et 5 mm. diam. *Semina* ala comprehensa 6 mm. longa et 1.5 mm. lata.

Hab. terram Celebicam.

Celebes: Lake Matana, Saroako, alt. 400 m., G. Kjellberg

2819 Bog., fl. and fr. Nov., type; Lake Towuti, alt. 300 m., G. Kjellberg 2161 Bog., fl. Aug.

The two species can be distinguished in this way:

- A. Leaves broadly elliptic, with 6—7 pairs of nerves. Panicle longer than the peduncle. Flowers at least partly 5-merous. Calyx lobes triangular. Corolla infundibuliform; tube extremely short. — From the Malay Peninsula and Sumatra to West Borneo. 1. *M. Beccariana* Baill.
- B. Leaves elliptic-oblong, with 8—13 pairs of nerves. Panicle shorter than the peduncle. Flowers 4-merous. Calyx lobes oblong. Corolla hypocrateriform; tube but slightly shorter than the lobes. — Celebes. 2. *M. celebica* Brem.